

## Technical Talk on The State of Practice of In-situ Tests for Design, Quality Control and Quality Assurance of Ground Improvement Works”

(Organised by Geotechnical Engineering, Technical Division, IEM)

BEM Approved CPD/PDP Hours: 2 Ref Number : IEM18/HQ/437/T

Date : 30<sup>th</sup> October 2018 (Tuesday)  
Time : 5.30pm – 7.30pm (Refreshments will be served at 4.45pm)  
Venue : Tan Sri Prof. Chin Fung Kee Auditorium, Third Floor, Wisma IEM, PJ  
Speaker : Mr. Serge Varaksin, M.Sc.

### SYNOPSIS

In the state-of-the-art report that was published on ground improvement processes at the 17th ISSMGE Conference, ground improvement was defined in five categories. This talk shall focus on the ground improvement techniques that either mechanically stabilize the soil or incorporate admixtures or inclusions and the most common in-situ geotechnical tests that are used during the geotechnical investigation, quality control and quality assurance phases of these techniques. In addition to the suitability and feasibility of the technique itself, the level of success of any ground improvement program is also related to the applicability and suitability of the criteria that is to be satisfied and the testing campaign that is to be undertaken to verify the works. Experience of the presenter indicates that the optimal approach is when acceptance is based on the project's actual geotechnical requirements rather than on minimum test results. At the same time, ground improvement design parameters can only be properly determined when the ground conditions are correctly comprehended, which is possible through meaningful geotechnical investigation. Similarly, applied treatment can only be confidently verified when testing is able to well relate to acceptance criteria. Hence, tests that are able to predict the acceptance criteria without reliance on experimental correlations and published work from other sites will result in the best engineering practice and confidence in results.

### SPEAKER'S BIODATA

Mr. Serge Varaksin was born in 1943 in Belgium. After completing his civil engineering degree, he was enrolled on a work-study program at Northwestern University at Evanston, USA. He completed his master's degree under Professor Jorg Osterberg and published his research on relative density below groundwater table in the ASTM, STP 523. In 1972, he performed his military service at the Belgium Military School as a teaching research assistant to Professor Van Wambeke. During this time, he was exposed to Menard Pressuremeter technologies. Soon after, he joined Menard of France in 1973 after a short stint with Fondedile of Belgium. Since then, he has devoted his career in creating the global network of Menard companies specialising in ground improvement works following the corporate visions of the late Louis Menard and Prof. Jean-Marie Cognon. He retired from Menard as the Deputy Managing Director. Serge Varaksin has given keynote lectures at international conferences and he has conducted touring lectures in Asia, Australia, Africa and America organised by ISSMGE. He has published more than 50 peer-reviewed papers in ground improvement techniques. Currently, he is the co-chairman of ISSMGE TC211 on ground improvement and scientific advisor for APAGEO.

**Ir. Lee Peir Tien**

**Chairman, Geotechnical Engineering Technical Division, IEM**

### FEE ANNOUNCEMENT (Effective: 1<sup>st</sup> October 2017)

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